

November 4, 2015

Jared Blumenfeld
Regional Administrator
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Blumenfeld:

The EPA Region IX Unions are concerned that, for almost a year, employees have worked and continue to work in 75 Hawthorne despite repeated test results which show that the air quality fails multiple regulatory standards and has resulted in numerous employees becoming ill. However, there has not been comprehensive testing to determine the cause – or causes – of these indoor air problems. Due to the number of employees with symptoms of acute discomfort that seem to go away when they leave the building, we consider 75 Hawthorne to suffer from Sick Building Syndrome. (See attached EPA Fact Sheet #4: Sick Building Syndrome).

With this letter, the Unions are demanding the following:

- 1 – Region 9 senior management, including yourself, Alexis Strauss, and Serena McIlwain, meet with representatives from AFGE, ESC and NTEU, for the purposes of reaching agreement on a framework going forward for the joint and collaborative development, implementation, and oversight of an Indoor Air Quality Management Plan for 75 Hawthorne.
- 2 - With full, joint oversight by the Unions and Management, conduct comprehensive indoor air sampling on all EPA floors of 75 Hawthorne. The sampling must demonstrate that the air quality is safe by meeting all applicable standards with respect to: 1) ventilation; 2) indoor pollutants (including but not limited to formaldehyde and caprolactam); 3) contamination from outside sources; and 4) biological contamination (such as mold). These sampling plans will be developed in consultation with subject

matter experts both within and outside of the EPA as requested by the Unions and/or management.

3 - No employees will be moved onto another floor of 75 Hawthorne – either as permanent or temporary workspace – until such time as the indoor air quality is demonstrated to meet all applicable safety and regulatory standards.

4 - The option of working from an alternative work space outside of 75 Hawthorne Street – including full-time telework – will be provided to any employee (regardless of portability of the employee's work) who requests it due to building indoor air concerns, whether or not the employee has yet to experience symptoms, until sampling confirms that indoor air quality at 75 Hawthorne meets all applicable regulatory and safety standards.

5 - Re-form the EPA Region 9 Health and Safety Committee with full cooperation and joint approval of the Unions and in full compliance with Federal regulations and 29 CFR 1960 Subpart F, and Executive Order 12196.

To date, EPA Management has used Region IX employees as “canaries in the coal mine” to determine whether the indoor air at 75 Hawthorne is a problem during the renovation process. Unfortunately for all of us, the indoor air in the building has been a problem, and to date the Region has failed to address that problem satisfactorily. This failure to ensure that the indoor air is safe prior to moving people in has led to dozens of employees becoming sick from the indoor air quality at 75 Hawthorne (see attached survey results). Many employees have asserted that the air is causing them discomfort and illness, but EPA Management has done little if anything to respond to these employees, aside from the employees on the 10th floor who have had more severe impacts and who explicitly requested to move their workspaces. Other employees have indicated that it does not seem beneficial to report feeling ill because so many employees reported illness for months and those reports were ignored, or worse denied, by EPA Management. The Unions do not want employees to be put in the position of having to ask for individual accommodations in order to avoid work stations where there are unhealthful levels of contaminants. Considering the high number of employees on each renovated floor that have reported experiencing health impacts, it is not reasonable to leave future risk assessments to individual employees.

Indoor air problems that have been cited as causes of, or contributing factors to, sick buildings include:

1. Inadequate ventilation;
2. Pollutants emitted inside the building;
3. Contamination from outside sources; and
4. Biological contamination.

These causes are thought to act in combination, and often supplement other occupant complaints.

The only way to know that the indoor air in the building is safe is to conduct comprehensive sampling for all possible causes contributing to the poor indoor air quality. The Unions have been asking for over a year for the indoor air sampling to be conducted before requiring employees to occupy renovated space at 75 Hawthorne. This was the procedure the Region used for the recarpeting of our offices in the early 2000s, and it is the approach that EPA itself recommends in its own publications on the EPA website (see <http://www2.epa.gov/indoor-air-quality-iaq/indoor-air-quality-offices-and-other-large-buildings>). In 2014, prior to the completion of any of the new floors, the Unions asked for comprehensive chemical testing of the new spaces (which also included testing of non-renovated floors so that EPA could have a baseline of the existing indoor air conditions and of outdoor air for comparison). (See attached email requesting air testing, October 2014) EPA Management refused to conduct comprehensive indoor air sampling until after employees were moved into the Phase 1 floors. Even then, notwithstanding the existence of over 30 separate ventilation zones on each floor and despite the Unions' requests for appropriately representative locations, sampling was conducted at only 1-3 locations on each renovated floor. Follow-up sampling conducted a month later showed that contaminant levels had not decreased, and, in fact, in many instances were even higher than the January sampling. In these initial rounds of sampling, levels of formaldehyde ranged up to 11 parts per billion volume (ppbv), exceeding the OEHHA 8 hour REL of 7 ppbv. Caprolactam levels measured up to 17 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), over twice the OEHHA 8 hour REL of 7 $\mu\text{g}/\text{m}^3$. Notably, the highest level of caprolactam found in the building in February was found in the single sample taken on the 12th floor. Because of the sparsity of sampling locations on all floors, it can only tell part of the story; chemical levels that would be found on most of each floor is still unknown and could very well be higher than at the few locations measured. (See attached email, dated March 12, 2015)

EPA Management's response to the February sampling results was that additional flushing would be conducted on renovated floors to remove contaminants from the indoor air. The Unions have received no confirmation that any additional flushing occurred after February 2015; and, importantly, we now know that increased flushing may not have had very much, if any, impact at all because the building's ventilation system has not been incorporating sufficient outdoor air (so that, instead of "flushing," the ventilation system may have just moved around chemicals within each set of floors on the same system). Repeat sampling conducted for the Phase I floors (floors 3, 10, 11, and 12) in July showed that chemical levels had either stayed the same or increased in the 5 months since the February sampling. Again, at the single location on the 12th floor, the caprolactam level increased over the 5 months to over 17 $\mu\text{g}/\text{m}^3$ and caprolactam levels of 18 $\mu\text{g}/\text{m}^3$ were found on the 10th floor, where 18 employees had already requested alternative work space. The Phase 2 floors (floors 14, 15, and 16) were apparently flushed for a longer period before moving in employees, which EPA

Management credits for the lower initial chemical levels. However, on these floors the chemical levels still exceeded OEHHA 8 hour RELs and, importantly, many employees have reported adverse impacts from the indoor air quality on those floors and some have asked for alternative work space.

Apparently the Region has invested in equipment that can be operated by Regional staff to provide an initial measurement of outdoor air flow in sampled locations; to date, despite repeated requests from the Unions to utilize that equipment on all renovated floors, it has only been deployed on the 10th floor. Even now that the Region and GSA have confirmed that the 10th floor has wholly inadequate ventilation, there has been no testing to evaluate the ventilation or conduct comprehensive sampling of any other floors of the building.

Accordingly, the Unions repeat our demand for immediate air flow and comprehensive testing on all renovated floors. Full air flow sampling, starting with measurements with Regional equipment, must be done throughout each floor to determine where there are “dead zones” which are not receiving sufficient, if any, outdoor air. For all other sampling, the Unions have provided a list of the minimum number of locations for the Phase I floors and can provide a list for each Phase II and Phase III floor as well. The Unions also demand not a single round of sampling, but at least 2 rounds of sampling to show that the levels are safe and/or are decreasing at an appropriate rate.

The Unions understand that, as the build-out proceeds, there are fewer and fewer options for relocation of employees within the building. For this reason, the Unions encourage EPA Management to immediately conduct the full evaluation of the renovated floors. In the meantime, however, it is not an acceptable solution to move employees onto the unevaluated floors to use as either permanent workspaces or “swing space.” The January 2014 Region IX Indoor Air Guidelines for the renovation provide that any Regional employee impacted by air quality issues could use alternative work space, including telework space, in response to indoor air concerns in the building. The Guidelines did not anticipate such widespread problems with the indoor air, thus it bears clarifying that the provision of alternative space must be in locations that are shown to not be impacted by the building renovation. Additionally, the option of alternative workspace must be extended to any employees that have concerns, whether they are experiencing symptoms themselves or not, about the indoor air quality until they can be provided full sampling results.

We are certain that you share our desire to have employees working in a safe work environment here at the EPA Region IX offices. The Unions have continued to work with you to ensure that the move proceeds smoothly. However, we are not willing to continue to put our bargaining unit members in harm’s way in deference to this construction schedule that does not account for confirmation of a safe work environment. We hope to work with you, in a collaborative way, on this important endeavor.

Sincerely,



Thelma Estrada, President
AFGE Local 1236



Taly Jolish, Vice President
AFGE Local 1236



Mark Sims, President
ESC EPA Unit



Destinee Cooper, Vice President
ESC EPA Unit



Patrick Chan, President
NTEU Chapter 295



Brent Maier, Vice President
NTEU Chapter 295

Attachment A / EPA Fact Sheet #4

United States
Environmental Protection
Agency

Air and Radiation (6609J)

Research and Development
(MD-56)
February 1991



Indoor Air Facts No. 4 (revised)

Sick Building Syndrome

Introduction

The term "sick building syndrome" (SBS) is used to describe situations in which building occupants experience acute health and comfort effects that appear to be linked to time spent in a building, but no specific illness or cause can be identified. The complaints may be localized in a particular room or zone, or may be widespread throughout the building. In contrast, the term "building related illness" (BRI) is used when symptoms of diagnosable illness are identified and can be attributed directly to airborne building contaminants.

A 1984 World Health Organization Committee report suggested that up to 30 percent of new and remodeled buildings worldwide may be the subject of excessive complaints related to indoor air quality (IAQ). Often this condition is temporary, but some buildings have long-term problems. Frequently, problems result when a building is operated or maintained in a manner that is inconsistent with its original design or prescribed operating procedures. Sometimes indoor air problems are a result of poor building design or occupant activities.

Indicators of SBS Include:

- Building occupants complain of symptoms associated with acute discomfort, e.g., headache; eye, nose, or throat irritation; dry cough; dry or itchy skin; dizziness and nausea; difficulty in concentrating; fatigue; and sensitivity to odors.
- The cause of the symptoms is not known.
- Most of the complainants report relief soon after leaving the building.

Indicators of BRI Include:

- Building occupants complain of symptoms such as cough; chest tightness; fever, chills; and muscle aches.
- The symptoms can be clinically defined and have clearly identifiable causes.
- Complainants may require prolonged recovery times after leaving the building.

It is important to note that complaints may result from other causes. These may include an illness contracted outside the building, acute sensitivity (e.g., allergies), job related stress or dissatisfaction, and other psychosocial factors. Nevertheless, studies show that symptoms may be caused or exacerbated by indoor air quality problems.

Causes of Sick Building Syndrome

The following have been cited causes of or contributing factors to sick building syndrome:

Inadequate ventilation: In the early and mid 1900's, building ventilation standards called for approximately 15 cubic feet per minute (cfm) of outside air for each building occupant, primarily to dilute and remove body odors. As a result of the 1973 oil embargo, however, national energy conservation measures called for a reduction in the amount of outdoor air provided for ventilation to 5 cfm per occupant. In many cases these reduced outdoor air ventilation rates were found to be inadequate to maintain the health and comfort of building occupants. Inadequate ventilation, which may also occur if heating, ventilating, and air conditioning (HVAC) systems do not effectively distribute air to people in the building, is thought to be an important factor in SBS. In an effort to achieve acceptable IAQ while minimizing energy

consumption, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recently revised its ventilation standard to provide a minimum of 15 cfm of outdoor air per person (20 cfm/person in office spaces). Up to 60 cfm/person may be required in some spaces (such as smoking lounges) depending on the activities that normally occur in that space (see ASHRAE Standard 62-1989).

Chemical contaminants from indoor sources: Most indoor air pollution comes from sources inside the building. For example, adhesives, carpeting, upholstery, manufactured wood products, copy machines, pesticides, and cleaning agents may emit volatile organic compounds (VOCs), including formaldehyde. Environmental tobacco smoke contributes high levels of VOCs, other toxic compounds, and respirable particulate matter. Research shows that some VOCs can cause chronic and acute health effects at high concentrations, and some are known carcinogens. Low to moderate levels of multiple VOCs may also produce acute reactions. Combustion products such as carbon monoxide, nitrogen dioxide, as well as respirable particles, can come from unvented kerosene and gas space heaters, woodstoves, fireplaces and gas stoves.

Chemical contaminants from outdoor sources: The outdoor air that enters a building can be a source of indoor air pollution. For example, pollutants from motor vehicle exhausts; plumbing vents, and building exhausts (e.g., bathrooms and kitchens) can enter the building through poorly located air intake vents, windows, and other openings. In addition, combustion products can enter a building from a nearby garage.

Biological contaminants: Bacteria, molds, pollen, and viruses are types of biological contaminants. These contaminants may breed in stagnant water that has accumulated in ducts, humidifiers and drain pans, or where water has collected on ceiling tiles, carpeting, or insulation. Sometimes insects or bird droppings can be a source of biological contaminants. Physical symptoms related to biological contamination include cough, chest tightness, fever, chills, muscle aches, and allergic responses such as mucous membrane irritation and upper respiratory congestion. One indoor bacterium, *Legionella*, has caused both Legionnaire's Disease and Pontiac Fever.

These elements may act in combination, and may supplement other complaints such as inadequate temperature, humidity, or lighting. Even after a building investigation, however, the specific causes of the complaints may remain unknown.

A Word About Radon and Asbestos...

SBS and BRI are associated with acute or immediate health problems; radon and asbestos cause long-term diseases which occur years after exposure, and are therefore not considered to be among the causes of sick buildings. This is not to say that the latter are not serious health risks; both should be included in any comprehensive evaluation of a building's IAQ.

Building Investigation Procedures

The goal of a building investigation is to identify and solve indoor air quality complaints in a way that prevents them from recurring and which avoids the creation of other problems. To achieve this goal, it is necessary for the investigator(s) to discover whether a complaint is actually related to indoor air quality, identify the cause of the complaint, and determine the most appropriate corrective actions.

An indoor air quality investigation procedure is best characterized as a cycle of information gathering, hypothesis formation, and hypothesis testing. It generally begins with a walkthrough inspection of the problem area to provide information about the four basic factors that influence indoor air quality:

- the occupants
- the HVAC system
- possible pollutant pathways
- possible contaminant sources.

Preparation for a walkthrough should include documenting easily obtainable information about the history of the building and of the complaints; identifying known HVAC zones and complaint areas; notifying occupants of the upcoming investigation; and, identifying key individuals needed for information and access. The walkthrough itself entails visual inspection of critical building areas and consultation with occupants and staff.

The initial walkthrough should allow the investigator to develop some possible explanations for the complaint. At this point, the investigator may have sufficient information to formulate a hypothesis, test the hypothesis, and see if the problem is solved. If it is, steps should be taken to ensure that it does not recur. However, if insufficient information is obtained from the walk through to construct a hypothesis, or if initial tests fail to reveal the problem, the investigator should move on to collect additional information to allow formulation of additional hypotheses. The process of formulating hypotheses, testing them, and evaluating them continues until the problem is solved.

Although air sampling for contaminants might seem to be the logical response to occupant complaints, it seldom provides information about possible causes. While certain basic measurements, e.g., temperature, relative humidity, CO₂, and air movement, can provide a useful "snapshot" of current building conditions, sampling for specific pollutant concentrations is often not required to solve the problem and can even be misleading. Contaminant concentration levels rarely exceed existing standards and guidelines even when occupants continue to report health complaints. Air sampling should not be undertaken until considerable information on the factors listed above has been collected, and any sampling strategy should be based on a comprehensive understanding of how the building operates and the nature of the complaints.

Solutions to Sick Building Syndrome

Solutions to sick building syndrome usually include combinations of the following:

Pollutant source removal or modification is an effective approach to resolving an IAQ problem when sources are known and control is feasible. Examples include routine maintenance of HVAC systems, e.g., periodic cleaning or replacement of filters; replacement of water-stained ceiling tile and carpeting; institution of smoking restrictions; venting contaminant source emissions to the outdoors; storage and use of paints, adhesives, solvents, and pesticides in well ventilated areas, and use of these pollutant sources during periods of non-occupancy; and allowing time for building materials in new or remodeled areas to off-gas pollutants before occupancy. Several of these options may be exercised at one time.

Increasing ventilation rates and air distribution often can be a cost effective means of reducing indoor pollutant levels. HVAC systems should be designed, at a minimum, to meet ventilation standards in local building codes; however, many systems are not operated or maintained to ensure that these design ventilation rates are provided. In many buildings, IAQ can be improved by operating the HVAC system to at least its design standard, and to ASHRAE Standard 62-1989 if possible. When there are strong pollutant sources, local exhaust ventilation may be appropriate to exhaust contaminated air directly from the building. Local exhaust ventilation is particularly recommended to remove pollutants that accumulate in specific areas such as rest rooms, copy rooms, and printing facilities. (For a more detailed discussion of ventilation, read Indoor Air Facts No. 3R, Ventilation and Air Quality in Office Buildings.)

Air cleaning can be a useful adjunct to source control and ventilation but has certain limitations. Particle control devices such as the typical furnace filter are inexpensive but do not effectively capture small particles; high performance air filters capture the smaller, respirable particles but are relatively expensive to install and operate. Mechanical filters do not remove gaseous pollutants. Some specific gaseous pollutants may be removed by adsorbent beds, but these devices can be expensive and require frequent replacement of the adsorbent material. In sum, air cleaners can be useful, but have limited application.

Education and communication are important elements in both remedial and preventive indoor air quality management programs. When building occupants, management, and maintenance personnel fully communicate and understand the causes and consequences of IAQ problems, they can work more effectively together to prevent problems from occurring, or to solve them if they do.

Additional Information

For more information on topics discussed in this Fact Sheet, contact your state or local health department, a non-profit agency such as your local American Lung Association, or the following:
National Institute for Occupational Safety and Health

www.cdc.gov/niosh/homepage.html
US Department of Health and Human Services
4676 Columbia Parkway (Mail Drop R2)
Cincinnati, Ohio 45226
Public Relations Office

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
www.ashrae.org/
1791 Tullie Circle, NE,
Atlanta, Georgia 30329

Building Owners and Managers Association
International
www.boma.org/
1250 Eye Street, NW,
Washington, DC 20005

Attachment B / IAQ Survey Summary

10/6/2015

HIGHLIGHTS OF THE INDOOR AIR QUALITY SURVEY AT EPA CHAPTER 295

NTEU, ESC, and AFGE jointly asked employees back in August to fill out a survey regarding potential health issues related to the Indoor Air Quality at EPA. Based on the updated survey results, 139 EPA employees opted to fill out the survey. This included employees from all three unions, plus one manager. The survey was meant to answer four primary questions:

- 1) how many employees reported getting sick?
- 2) for those employees who reported getting sick, what the scope of their symptoms (i.e. how sick did they become)?
- 3) on which floors were employees located who reported getting sick?
- 4) how well has management responded to employees' concerns about health issues related to the indoor air quality?

This survey was not intended to gather statistically valid data. Rather, this was an attempt to understand the potential scope of the health issues faced by EPA employees in Region 9. The expectation is that many survey participants chose to fill out the survey precisely because they experienced symptoms after renovations began. However, even accounting for self-selection, the results are troubling.

Issue 1: HOW MANY EMPLOYEES REPORTED EXPERIENCING SYMPTOMS AFTER RENOVATIONS BEGAN?

89 employees (out of the 139 survey participants) reported suffering one or more symptoms at some point after renovations began. Fortunately, many employees reported only minor symptoms that were temporary in nature, or had lessened over time, and thus were not experiencing any significant problems at the time of the survey. However, the majority of employees reported that they continue to experience symptoms as a result of working in 75 Hawthorne.

Issue 2: WHAT IS THE SCOPE OF THE ILLNESS SUFFERED BY EMPLOYEES WHO REPORTED SYMPTOMS?

Of the 89 overall who reported experiencing symptoms, 48 reported suffering 3 or more symptoms. 24 reported suffering 5 or more symptoms. 5 employees reported 10 or more symptoms.

Although there is no bright line by which to assess which employees have suffered serious illness, we consider any employees who reported experiencing 5 or more symptoms that are continuing to the present day to be serious. We also note that 16 employees reported visiting a medical professional for treatment.

Issue 3: HOW MANY EMPLOYEES ON EACH FLOOR HAVE EXPERIENCED SYMPTOMS?

Employees who reported experiencing symptoms were located on every floor in which EPA employees work. Generally, employees on renovated floors reported experiencing symptoms more frequently than those who worked on un-renovated floors, but there were notable exceptions. Of special note are the 8th and 9th floors. The high numbers for these two floors could be explained because management commonly relocated employees who experienced symptoms to these two floors. However, we do not have enough information to fully explain this result at this time. The results are found in the table below.

Note that some employees reported working on more than one floor since the renovations began. We permitted this option because so many employees have been moved between floors for a variety of reasons over the past year. Thus, the results for each floor are not discrete, and each column does not add up to 89, 48, and 24 respectively. They are still quite informative, however.

Management's initial response to concerns about indoor air quality focused exclusively on the 10th floor (the first renovated floor on which EPA employees were assigned to work.). EPA management has since agreed to expand their concerns to the other renovated floors, although they have refused to conduct any further testing, and have instead demanded that GSA and Hines conduct all such testing. However, this survey suggests that a more holistic approach is needed, and that the 8th floor, in particular, has been overlooked as a potential area of concern.

<u>1 or more symptoms</u>	<u>3 or more symptoms</u>	<u>5 or more symptoms</u>
10 th - 21	10 th - 15	10 th - 13
8 th - 19	8 th - 12	9 th - 8
16 th - 18	2 nd - 10	8 th - 6
9 th - 16	9 th - 10	2 nd - 4
12 th - 16	12 th - 10	12 th - 4
2 nd - 15	15 th - 10	15 th - 4
6 th - 15	16 th - 9	4 th - 2
15 th - 15	19 th - 8	14 th - 2
14 th - 13	14 th - 6	16 th - 2
19 th - 11	6 th - 5	19 th - 2
17 th - 8	17 th - 5	6 th - 1
18 th - 7	11 th - 4	11 th - 1
4 th - 4	4 th - 3	13 th - 1
11 th - 4	13 th - 3	18 th - 1
13 th - 4	18 th - 3	3 rd - 0
3 rd - 1	3 rd - 1	17 th - 0

Issue 4: HOW HAS MANAGEMENT RESPONDED TO EMPLOYEES COMPLAINTS?

Overall, the results have been mixed:

- 47 employees notified management that they were experiencing symptoms while in the workplace.
- 40 employees reported that management offered some form of resolution to their concerns. The most common response by management was to allow employees to move to an unrenovated floor.
- Seven employees reported that management did nothing to address their concerns.
- Taking into account all employees who reported experiencing symptoms, 5 employees reported that their health concerns were completely resolved by management's actions.
- 21 report that their concerns have not been resolved by management's actions.

Attachment C / Oct. 2014 email & attachment

Chan, Patrick

From: Dreyfus, Bethany
Sent: Thursday, October 22, 2015 8:46 AM
To: Dreyfus, Bethany
Subject: Fw: Request re Indoor Air Issue
Attachments: Request re Indoor Air.docx

From: Jolish, Taly
Sent: Monday, October 27, 2014 12:31 PM
To: Quast, Sylvia; Moyer, Robert
Cc: Estrada, Thelma; Dreyfus, Bethany
Subject: Request re Indoor Air Issue

Sylvia and Bob – Bethany drafted the attached summary of our indoor air concern and our request re same. We'll walk through it at our 2 o'clock, but we wanted you to have the document as well. Thanks. Taly

Indoor Air Sampling Request:

Prior to moving onto our new floors, it is our understanding that a "flushing" protocol is being used to ventilate each floor to address the potentially harmful chemicals that may be contained in building materials, furnishings, paint, and carpet. This ventilation procedure includes bringing in outdoor air to dilute off-gassing chemicals from the new materials, which generally will off-gas more significantly when initially put in place and slowly dissipate over time. This ventilation procedure does not, however, include any indoor air sampling to ensure that the ventilation method used is successful prior to moving employees into the space.

The Regional indoor air quality guidelines developed for the move, particular to the construction phase but presumably applicable to the period after moving into new floors, depends upon employees noticing adverse impacts and reporting them to building management in order to determine whether there is a problem with indoor air quality. This process is inherently unreliable for a number of reasons. First, chemicals at levels of concern may not be physically noticed by most people but may still be causing a health concern. Second, determination that an impact is in fact from the new space will be difficult to ascertain (except in the most severe circumstances). Third, there may be some employees who, despite the guidelines, are not comfortable expressing discomfort to management. Finally, waiting to make the determination that there are elevated chemicals in the indoor air until after the office is moved in makes the determination of the cause of the elevated levels more complicated.

Notably, before Region 9 reoccupied the building following re-carpeting and painting in the early 2000s, indoor air sampling was conducted. This sampling was done in the region after the failure to do so after re-carpeting at Headquarters led to numerous complaints and the need to evacuate EPA offices until the issue was resolved.

For these reasons, ORC staff would like air sampling conducted on the 12th floor prior to moving into that space. An air sampling strategy would presumably need to include a baseline (on that or a comparable floor), outdoor air samples for comparison, a list of the potential chemicals and screening levels, and a plan should elevated levels be encountered. Some of this sampling could be conducted using EPA's laboratory; other sampling apparently would need to be done at other facilities (e.g. formaldehyde).

It would be prudent to sample each renovated floor of 75 Hawthorne prior to occupancy. However, if several floors using the same building materials were to be sampled and this sampling confirmed that the ventilation procedures were successful, sampling may not be necessary prior to future move-ins. However, as ORC is one of the first floors to move into new space, indoor air in that space should certainly be sampled.

Discussions with health and safety personnel indicate that a sampling effort for the entire building could cost from \$15,000 to \$25,000. There was no discussion of the cost for such sampling for a single floor. Also, this was a back-of-the-envelope estimate without the scope of the project fully determined.

Attachment D / March 12 email

Alkon, Margaret

From: Alkon, Margaret
Sent: Thursday, March 12, 2015 4:45 PM
To: Quast, Sylvia
Cc: Estrada, Thelma; Reich, Daniel; Jolish, Taly; Dreyfus, Bethany; Magnuson, Janet
Subject: Indoor Air Testing -AFGE concerns re 12th floor

Please see below, and let us know if you wish to discuss:

We are writing to inform you that the union considers the February sampling on the 12th floor to have been inadequate. Based on numerous discussions with management, we understood that the February sampling would include each of the locations that had been sampled in January, with the exception of the large conference room for which a smaller conference room was to be substituted. We were told explicitly that the resampling in those locations would include the three chemicals that were found in the January round: caprolactam, formaldehyde, and acetonitrile. Both the caprolactam and formaldehyde cannot be tested for with summa canisters, so these chemicals would need to be tested with sorbent tubes.

From the maps and data provided yesterday, it appears that no locations on the 12th floor were re-tested with sorbent tubes. The location where the previously highest caprolactam and formaldehyde levels were found in the January sampling, apparently only a summa canister was used, not a sorbent tube, so there is no data for either of those chemicals. It was only the smaller office that was tested with the sorbent tube, which showed caprolactam at 17 $\mu\text{g}/\text{m}^3$, the highest level we have seen in the testing so far. This was the totality of the samples taken on the 12th floor. Notably, the only sorbent tube samples on any of the floors that were repeated from January showed an increase in caprolactam from 12.6 in January to 15.8 in February.

The unions have been concerned from the start that the January set of three sampling locations was inadequate to characterize the indoor air quality on the 12th floor with its multiple offices and HVAC zones. This second single sampling round is even more inadequate. At this point, the only sample we have for the entire 12th floor is 17 $\mu\text{g}/\text{m}^3$ of caprolactam. This is more than double OEHHA's Reference Exposure Levels (RELs) for repeated 8 hour exposures for caprolactam. For reference, OEHHA's caprolactam RELs are:

Chronic REL (long-term exposure) 2.2 $\mu\text{g}/\text{m}^3$
8 hour REL (for repeated 8-hour exposures) – 7 $\mu\text{g}/\text{m}^3$
Acute REL (for a 1-hour exposure): 50 $\mu\text{g}/\text{m}^3$

Caprolactam has immediate impacts that were experienced by some initially on moving onto the 12th floor, such as eye and throat irritation. When we discussed this matter at our union meeting today, however, it became clear that our bargaining unit includes lawyers that are reluctant to complain, but at the same time, there are bargaining unit members experiencing symptoms that correlate to caprolactam exposure that they may have been assuming were from colds or allergies. Also, our members have noticed but not necessarily notified management of conditions varying on our floor, such as more extreme smells in the mornings after the ventilation has been off either overnight or over the weekend. Importantly, caprolactam also has chronic impacts including direct impacts to both to the upper respiratory system and eyes.

The union has noted that there continue to be many questions about the status of our floor's indoor air. Apparently there have been meetings and communications with the 10th floor to provide those employees with information about problems with the indoor air and what is being done to address them. We think it would be beneficial to have a similar opportunity for a discussion and information for our floor.

Based on the failure to resample and the fact that an enclosed office showed caprolactam more than twice the OEHHA 8-hour REL, the union is requesting that full sampling be conducted for the chemicals at issue and that the HVAC expert being retained to evaluate the 10th floor also evaluate the ventilation on 12th.

Thanks

AFGE Local 1236

INDOOR AIR QUALITY GUIDELINES for Building Renovation

EPA Region 9 – Indoor Air Quality (IAQ) Committee

January 28, 2014

These Indoor Air Quality (IAQ) Guidelines are being made available for the current building renovation, which includes significant construction and moves both to swing space and into newly renovated spaces. The building renovation is being conducted in a manner intended to minimize exposure to dust, particulates, odors, and gaseous contaminants from the project. However, individual sensitivities to contaminants can vary widely. This memorandum provides guidance to Region 9 managers and staff to help with timely response to IAQ issues, describing options to allow Region 9 employees to continue work in a safe and healthful environment.

Planned Renovations

Building renovation includes a number of activities that may produce dust, particulates, objectionable odors, and gaseous contaminants. Such activities may include new furnishings and office equipment, replacement of carpeting and cove moldings, interior office construction or renovation projects, the use of solvents, glues, caulks or mastics, interior and exterior painting or the application of any architectural materials or coatings. Employees are being provided with updated renovation schedules indicating when renovation will be occurring on particular floors. In addition, the Facilities Program Office will provide advance notification to all Region 9 employees as soon as possible, but not less than 24 hours, prior to the start of construction or renovation activities on a particular floor.

In addition, prior to occupancy of a renovated floor, heating, ventilation and air conditioning (HVAC) "flush-out" operations will be implemented to dilute and evacuate any airborne contaminants in the renovated space. Furthermore, once the renovated space is occupied flush-out operations will continue to remove remaining unwanted contaminants in the space.

IAQ Incidents

Senior management, employee unions, and the IAQ Committee support prevention of IAQ exposure impacts during building renovation, timely response to any IAQ issues that may arise and a flexible approach to alternative work space to address those potential IAQ impacts. These guidelines apply to any employee who is impacted by air quality issues related to building renovation. All IAQ complaints should be reported immediately to the employee's supervisor and the Facilities Program Office at 415-972-3355.

To ensure timely response to IAQ issues, supervisors are empowered to be flexible and assist their employees in utilizing the best response option to protect the health and well-being of EPA Region 9 employees. Employees and their supervisors are encouraged to review what equipment, training (e.g., Flexiplace, enabling EC-500) and approvals may be necessary should an employee need to work in an alternative work space or utilize Flexiplace. Employees will be provided the opportunity to participate in any necessary training(s) in order to minimize work disruption should a move to an alternative work space be necessary.

Importantly, any employee experiencing an adverse reaction to the indoor air quality should take immediate steps to leave the area. That employee should then notify the Facilities Program Office and work with his or her supervisor to determine next steps. Where continued work in an

alternative work space is feasible, the employee and supervisor should work with the Facilities Program Office to find an appropriate alternative work space. Once an alternative work space is established, the employee should work with their supervisor to determine the best option moving forward for their particular situation.

After addressing any immediate IAQ impact to the employee, the employee and his or her supervisor should work together to determine the appropriate course of action to both ensure a safe, healthful work environment and to minimize work disruption. The two primary options for work relocation are:

- Relocate to an alternative work space on the same or another floor where the employee is not impacted (e.g., swing space, conference rooms, library, empty workstations).
- **With supervisor's concurrence** – Use Flexiplace Program to work at home or other approved alternate work location (AWL).

The amount of time that an employee may need to work in an alternative work space will vary depending on the IAQ issue and the individual circumstances. To return to the location where the employee experienced IAQ impacts, an approach that includes trial attempts may be necessary. The employee and his or her supervisor should work together to determine the best long term plan.

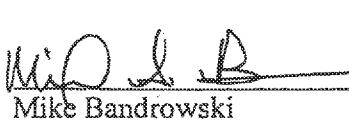
If the impacted employee does not have portable work or if the IAQ impacts last beyond the immediate exposure, the employee should work with his or her supervisor and Human Resources to discuss other options, including the use of employee leave (sick leave, annual leave, comp time, etc.) or filing for workers' compensation.

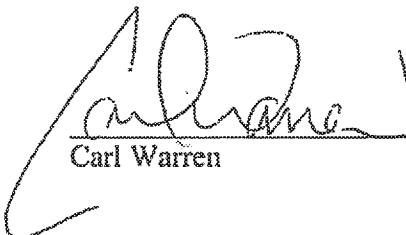
Project Tracking

The Facilities Program Office will be tracking complaints and responses during the renovation. The IAQ Committee will review the tracked information and will meet as necessary to review these guidelines to determine whether any changes are needed to ensure that the process is appropriately reflected in the guidelines and is proceeding smoothly.


Management Representatives:

 1/28/14
Joel Jones Date

 1/28/14
Mike Bandrowski Date

 1/28/14
Carl Warren Date

Union Representatives:

 1/28/14
Christine Vineyard – NTEU Chapter 295 Date

 1/28/14
Bethany Dreyfus – AFGE Local 1236 Date

 1/28/14
John Kelly – ESC Date